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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Volker Krink

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EXAMINER

PASCHALL, MARK H

ART UNIT

PAPER NUMBER

3742

MAIL DATE

DELIVERY MODE

05/16/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0,194,634. EP teaches a plasma arc torch nozzle 18 which has a thin coating of a nitride on nozzle portions, as claimed to reduce erosion of the nozzle. It is obvious that the nitriding process to coat the nozzle, copper, are micro particles which are embedded in the copper, since nitriding is a process which injects particles into the substrate. Use

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of a particular particle size as set forth in the dependent claims is considered a choice well within the skill level of the artisan, dependent on undisclosed parameters such as power levels and gases used in the torch operation. As per claim 12 the nozzle is copper. As per claim 15 is also an obvious choice to clean the nozzle and shape it to the desired shape, such steps conventional in the machining art of metal coating.

Response to Arguments

Applicant's arguments filed 02-13-2008 have been fully considered but they are not persuasive. Firstly, claim 1 defines a nozzle, intended to be used in a plasma torch, but merely construed as just a nozzle, since the plasma torch has not been positively recited.

Basically claim 1 defines a nozzle, with wear resistant micro particles embedded in metal. Ep 634' clearly teaches a nozzle with a coating which is nitrided on the metal. The artisan that in addition to nitriding comprising injecting of particles into a metal surface, the transition area between the coating and the substrate, metal, is a rough interface with particles of the coating embedded into the metal and vice-versa. It is clear that some particles will be embedded into the metal of the nozzle. The claims are silent as to the degree of embedding or the uniformity of embedding; only mentioning embedding of particles into a metal. It is submitted that any coating would lead to embedded particles into the coating substrate, since if the embedding was not present then the coating would literally fall off of the substrate.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark H. Paschall whose telephone number is 571 272-4784. The examiner can normally be reached on 7am - 3pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tu Hoang can be reached on 571-272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Mark H Paschall
Primary Examiner
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